

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	90	429//321	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:25
L2	3	1 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:25
L3	265	429//322	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:29
L4	4	3 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:29
L5	100	429//323	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:30

L6	2	5 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:30
L7	1803	429//231.95	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:30
L8	2	6 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:30
L9	35	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)). in. and lithium and electrode and porosity and separator and insulat \$4	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:32
L10	35	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)). in. and lithium and electrode\$2 and porosity and separator and insulat \$4	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:32

L11	12	((lithium near3 (battery batteries cell\$2)) and (film layer) and electrode and ((insulat \$3 passivat\$3) near5 (film\$2 layer\$3)) and (porous pore\$2 porosit \$3) and bind\$4 and separator\$2).clm.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:37
L12	1	10/562438	US-PGPUB	OR	OFF	2008/05/09 16:52
L13	371	429//246	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:53
L14	15	13 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:54
L15	324	429//251	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:55
L16	9	15 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/09 16:55
S1	1	10/562438	US-PGPUB	OR	OFF	2007/12/07 12:37
S2	1	S1 and apparent	US-PGPUB	OR	OFF	2006/10/18 11:43
S3	0	hei.in. and (lithium same battery)	US-PGPUB	OR	OFF	2006/10/18 11:43

S4	0	hei.in. and (lithium same battery)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:43
S5	0	(hei).in. and (lithium same battery)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:44
S6	0	(hei).in. and (lithium same battery)	JPO	OR	OFF	2006/10/18 11:44
S7	0	(hei).in. and battery	JPO	OR	OFF	2006/10/18 11:44
S8	14	(hei).in. and battery	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:47
S9	77	429//321	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:59
S10	63	S9 and lithium and (film layer)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:48
S11	32	S9 and lithium and (film layer) and electrode and binder\$2	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:48
S12	8	S9 and lithium and (film layer) and electrode and binder\$2 and porosity and size\$2 and particle \$2	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:50
S13	5	S9 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator \$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 11:59
S14	204	429//322	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 12:04
S15	6	S14 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 12:04

S16	88	429//323	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/19 12:32
S17	3	S16 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 12:05
S18	1436	429//231.95	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 12:05
S19	161	S18 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 12:06
S20	38	S18 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfe polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide \$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/18 12:06
S21	14966	inoue.in.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/19 12:32
S22	127	inoue.in. and electrode and (inorganic oxide filler) and film and (pores porous porosity) and (binder\$2 adhesive \$2)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/19 12:33

S23	48	inoue.in. and electrode and (inorganic oxide filler) and film and (pores porous porosity) and (binder\$2 adhesive \$2) and (insulat\$4 near5 film\$2)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/19 12:35
S24	9	inoue.in. and electrode and (inorganic oxide filler) and film and (pores porous porosity) and (binder\$2 adhesive \$2) and (insulat\$4 near5 film\$2) and (lithium near5 battery)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/19 12:35
S25	1	"6395423".pn.	USPAT	OR	OFF	2006/10/19 13:04
S26	0	S25 and (aqueous same electrolyte same battery) and (positive same negative same electrode\$2 same separator\$2)	USPAT	OR	OFF	2006/10/19 13:05
S27	0	S25 and (aqueous same electrolyte same battery) and (electrode \$2 same separator\$2)	USPAT	OR	OFF	2006/10/19 13:05
S28	0	S25 and aqueous	USPAT	OR	OFF	2006/10/19 13:05
S29	1	S25 and electrolyte and separator and electrode \$2	USPAT	OR	OFF	2006/10/19 13:06
S30	1	S25 and electrolyte and separator and electrode \$2 and battery	USPAT	OR	OFF	2006/10/19 13:13
S31	1	S25 and (organic near5 electrolyte)	USPAT	OR	OFF	2006/10/19 13:14
S32	1	S25 and electrolyte	USPAT	OR	OFF	2006/10/19 13:31
S33	1	S25 and (insulat\$4 near5 film)	USPAT	OR	OFF	2006/10/19 13:38
S34	0	S25 and (insulat\$4 near5 film) and film\$2 and (oxide same filler same binder)	USPAT	OR	OFF	2006/10/19 13:39
S35	0	S25 and (insulat\$4 near5 film) and film\$2 and oxide and filler and binder	USPAT	OR	OFF	2006/10/19 13:39

S36	0	S25 and (insulat\$4 near5 film) and film\$2 and oxide and filler and adhesiv\$4	USPAT	OR	OFF	2006/10/19 13:39
S37	0	S25 and (insulat\$4 near5 film) and film\$2 and filler and adhesiv\$4	USPAT	OR	OFF	2006/10/19 13:39
S38	1	S25 and (insulat\$4 near5 film) and film\$2 and oxide and (adhesiv \$4 binder)	USPAT	OR	OFF	2006/10/19 13:40
S39	1	S25 and (insulat\$4 near5 film) and film\$2 and oxide and (adhesiv \$4 binder) and (cover\$3 near5 film)	USPAT	OR	OFF	2006/10/19 14:19
S40	1	S25 and thickness and porosity	USPAT	OR	OFF	2006/10/19 14:22
S41	1	S25 and thickness and porosity and size\$2	USPAT	OR	OFF	2006/10/19 14:37
S42	0	S25 and thickness and porosity and size\$2 and thick	USPAT	OR	OFF	2006/10/19 14:24
S43	1	S25 and (pore same size \$2)	USPAT	OR	OFF	2006/10/19 14:38
S44	1	S25 and pore\$2	USPAT	OR	OFF	2006/10/19 14:41
S45	0	S25 and polycrystal\$6	USPAT	OR	OFF	2006/10/19 14:41
S46	1	S25 and crystal\$5	USPAT	OR	OFF	2006/10/19 15:26
S47	1	S25 and particle\$3	USPAT	OR	OFF	2006/10/19 17:59
S48	1	S25 and particle\$3 and \$5crystal\$5	USPAT	OR	OFF	2006/10/19 15:29
S49	1	10/562438	US-PGPUB	OR	OFF	2006/10/19 15:34
S50	1	S49 and polycrystal\$6	US-PGPUB	OR	OFF	2006/10/19 15:40
S51	0	kawakimi.in. and (inorganic near5 oxide)	US-PGPUB	OR	OFF	2006/10/19 15:40
S52	0	kawakimi.in. and (inorganic near5 oxide)	US-PGPUB; USPAT	OR	OFF	2006/10/19 15:40
S53	70	kawakami.in. and (inorganic near5 oxide)	US-PGPUB; USPAT	OR	OFF	2006/10/19 15:40
S54	2	kawakami.in. and (inorganic near5 oxide) same \$5crystal\$5	US-PGPUB; USPAT	OR	OFF	2006/10/19 15:41

S55	48	kawakami.in. and (inorganic near5 oxide) and \$5crystal\$5	US-PGPUB; USPAT	OR	OFF	2006/10/19 15:41
S56	9	kawakami.in. and (inorganic near5 oxide) and \$5crystal\$5 and battery and lithium	US-PGPUB; USPAT	OR	OFF	2006/10/19 15:41
S57	1	"6811982".pn.	USPAT	OR	OFF	2006/10/21 12:27
S58	0	S57 and \$5crystal\$5	USPAT	OR	OFF	2006/10/19 18:11
S59	1	S25 and size and separator	USPAT	OR	OFF	2006/10/19 17:59
S60	1	S25 and size\$2 and separator	USPAT	OR	OFF	2006/10/19 17:59
S61	1	S25 and size\$2 and separator and porosity and porous	USPAT	OR	OFF	2006/10/19 18:00
S62	1	S25 and size\$2 and separator and porosity and porous and pore	USPAT	OR	OFF	2006/10/19 18:00
S63	0	S57 and separator and por\$6	USPAT	OR	OFF	2006/10/19 18:10
S64	0	S57 and separator	USPAT	OR	OFF	2006/10/19 18:10
S65	1	"6811928".pn.	USPAT	OR	OFF	2006/10/19 18:11
S66	0	S65 and \$5crystal\$5	USPAT	OR	OFF	2006/10/21 12:24
S67	1	S65 and separator and por\$6	USPAT	OR	OFF	2006/10/22 17:07
S68	357	(lithium same battery) and (insulat\$4 near5 (film layer)) and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 12:46
S69	17	(lithium same battery) and (insulat\$4 near5 (film layer)) and (separator near5 porosity) and ((insulat\$4 near5 (film layer)) same porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 13:30
S70	1	10/562438	US-PGPUB	OR	OFF	2006/10/22 12:59
S71	3843	S70 separator and actual and ratio	US-PGPUB	OR	OFF	2006/10/22 12:59
S72	1	S70 and separator and actual and ratio	US-PGPUB	OR	OFF	2006/10/22 13:09

S73	0	(zhang same zhangming).in.	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:12
S74	0	cellgard.as.	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:11
S75	55	celgard.as.	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:11
S76	23	celgard.as. and separator and lithium and battery	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:11
S77	12	(zhang same zhengming).in.	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:26
S78	1	"6432586".pn.	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:13
S79	1	S78 and separator and film and porosity	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:13
S80	1	S78 and separator and film and porosity and size \$2 and pore	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:20
S81	3	S77 and separator and film and porosity and size \$2 and pore	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:20
S82	67	(ito same masanori).in.	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:26
S83	0	(ito same masanori).in. and separator and lithium and battery and insulat\$6 and film	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:27
S84	0	(ito same masanori).in. and separator and lithium and battery and film	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:27
S85	0	(ito same masanori).in. and separator and lithium and battery	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:27
S86	0	S82 and separator and lithium and battery	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:28
S87	3	S82 and battery	US-PGPUB; USPAT	OR	OFF	2006/10/22 13:28
S88	372	(lithium same battery) and (separator near5 porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 13:48
S89	359	(lithium same battery) and (separator near5 porosity) and (ceramic nea5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 13:49

S90	11	(lithium same battery) and (separator near5 porosity) and (ceramic near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 14:06
S91	0	(lithium same battery) and (separator near5 porosity) and (ceramic near5 (layer film)) and (pore porous porosity)	EPO; JPO; DERWENT	OR	OFF	2006/10/22 14:06
S92	18	(lithium same battery) and (separator same porosity) and (ceramic near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 14:12
S93	733	(lithium same battery) and separator and ((insulative insulating ceramic) near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 14:13
S94	96	(lithium same battery) and (separator near5 porosity) and ((insulative insulating ceramic) near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 14:34
S95	106	(lithium same battery) and (separator near5 porosity) and ((insulating ceramic inorganic) near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:14
S96	1	"6395423".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:14
S97	1	S96 and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:17
S98	1	"6811928".pn.	USPAT	OR	OFF	2006/10/22 15:17
S99	1	S98 and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 16:16
S100	1	"6287720".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:22
S101	1	S100 and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:25
S102	96	(lithium near battery) and (separator same (polypropylene PPE) same porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:37

S103	30	(lithium near battery) and ((inorganic ceramic) same (film separator) same porosity)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:43
S104	30	(lithium near battery) and ((inorganic ceramic) same (film separator) same porosity) and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:43
S105	41	(lithium near battery) and ((inorganic ceramic) same (layer film separator coat\$3) same porosity) and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:51
S106	1	"4791144".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:51
S107	1	S106 and filler\$2 and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 15:51
S108	1	"6881515".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 16:16
S109	1	S108 and polypropylene and separator and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 16:18
S110	71	(lithium same battery) and (((polypropylene PPE) near5 separator) same porosity) and porosity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/22 16:19
S111	1	"6395423".pn.	USPAT	OR	OFF	2006/10/22 17:07
S112	0	S111 and (porosity pore size\$2 porous) and separator and filler	USPAT	OR	OFF	2006/10/22 17:08
S113	1	S111 and (porosity pore size\$2 porous) and separator and inorganic	USPAT	OR	OFF	2006/10/22 17:08
S114	4301	H01M006/18	EPO; JPO; DERWENT	OR	OFF	2006/10/29 13:52
S115	9	S114 and lithium and battery and film and porosity	EPO; JPO; DERWENT	OR	OFF	2006/10/29 13:52
S116	17647	H01M004/58	EPO; JPO; DERWENT	OR	OFF	2006/10/29 13:52
S117	7	S116 and lithium and battery and film and porosity	EPO; JPO; DERWENT	OR	OFF	2006/10/29 13:53
S118	1	"6395423".pn.	USPAT	OR	OFF	2006/10/29 13:56

S119	0	S114 and separator and porosity	USPAT	OR	OFF	2006/10/29 17:13
S120	1	S118 and separator and porosity	USPAT	OR	OFF	2006/10/29 13:56
S121	1	S118 and separator\$2 and porosit\$4	USPAT	OR	OFF	2006/10/29 15:40
S122	276	(lithium near5 battery) and (separator\$4 near5 porosity)	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:07
S123	276	(lithium near5 battery) and (separator\$4 near5 porosity) and porosity	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:09
S124	276	(lithium near5 battery) and (separator\$4 near5 porosity) and porosity and separator	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:13
S125	707	nagayama.in.	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:13
S126	3	S125 and (lithium near5 battery) and (separator \$4 near5 porosity) and porosity and separator	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:13
S127	0	sun.in. and (lithium near5 battery) and (heat near activatabl)	USPAT	OR	OFF	2006/10/29 14:27
S128	0	sun.in. and (lithium near5 battery) and (heat near activatabl)	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:27
S129	7	sun.in. and (lithium near5 battery) and (heat near activatable)	US-PGPUB; USPAT	OR	OFF	2006/10/29 14:30
S130	1	"20030152828"	US-PGPUB	OR	OFF	2006/10/29 14:31
S131	1	S130 and porosity	US-PGPUB	OR	OFF	2006/10/29 19:06
S132	1	S118 and pore and size \$3	USPAT	OR	OFF	2006/10/29 17:08
S133	1	S130 and pore and size \$2	US-PGPUB	OR	OFF	2006/10/29 16:01
S134	1	10/562438	US-PGPUB	OR	OFF	2006/10/29 16:01
S135	1	S134 and electrode\$2 and rough\$4	US-PGPUB	OR	OFF	2006/10/29 16:33
S136	170	(lithium same battery) and (electrode same roughness)	US-PGPUB; USPAT	OR	OFF	2006/10/29 16:11

S137	29	(lithium same battery) and (electrode same roughness) and (dry\$3 same (speed rate))	US-PGPUB; USPAT	OR	OFF	2006/10/29 16:11
S138	1	S118 and crystal\$5 and size\$2	USPAT	OR	OFF	2006/10/29 16:26
S139	0	S130 and crystal\$5	US-PGPUB	OR	OFF	2006/10/29 16:32
S140	0	S134 and polycrystal\$^	US-PGPUB	OR	OFF	2006/10/29 16:33
S141	1	S134 and polycrystal\$	US-PGPUB	OR	OFF	2006/10/29 16:37
S142	17	(lithium same battery) and (filler\$2 same (crystalline polycrystal\$5 crystal\$) same film)	US-PGPUB	OR	OFF	2006/10/29 16:38
S143	25	(lithium same battery) and (filler\$2 same (crystalline polycrystal\$5 crystal\$) same film)	US-PGPUB; USPAT	OR	OFF	2006/10/29 16:42
S144	125	(lithium same battery) and (filler\$2 same (crystalline polycrystal\$5 crystal\$))	US-PGPUB; USPAT	OR	OFF	2006/10/29 16:42
S145	0	S118 and filler\$2	USPAT	OR	OFF	2006/10/29 16:47
S146	1	S118 and inorganic	USPAT	OR	OFF	2006/10/29 17:00
S147	29	(sol near5 polycrystalline) and particles	USPAT	OR	OFF	2006/10/29 17:01
S148	0	(sol near5 polycrystalline) and particles and colloid	USPAT	OR	OFF	2006/10/29 17:01
S149	0	(sol near5 polycrystalline) and particles and coloid	USPAT	OR	OFF	2006/10/29 17:01
S150	2	(sol near5 polycrystalline) and particles and colloid\$3	USPAT	OR	OFF	2006/10/29 17:01
S151	0	S130 and size\$2	USPAT	OR	OFF	2006/10/29 17:08
S152	1	S130 and size\$2	US-PGPUB	OR	OFF	2006/10/29 17:25
S153	0	S114 and binder	USPAT	OR	OFF	2006/10/29 17:13
S154	0	S114 and cross\$7	USPAT	OR	OFF	2006/10/29 17:14

S155	1	S118 and cross\$7	USPAT	OR	OFF	2006/10/29 17:14
S156	1	S118 and cross\$7 and binder	USPAT	OR	OFF	2006/10/29 17:22
S157	0	S118 and cross\$7 and binder and weight	USPAT	OR	OFF	2006/10/29 17:16
S158	1	S118 and part\$2	USPAT	OR	OFF	2006/10/29 17:23
S159	0	S130 and binder\$2 and part\$2	US-PGPUB	OR	OFF	2006/10/29 17:25
S160	0	S130 and binder\$2	US-PGPUB	OR	OFF	2006/10/29 17:25
S161	1	S130 and part\$2	US-PGPUB	OR	OFF	2006/10/29 17:29
S162	0	S118 and colloid\$3	US-PGPUB	OR	OFF	2006/10/29 17:29
S163	1	S118 and colloid\$3	USPAT	OR	OFF	2006/10/29 17:29
S164	1	"6811928".pn.	USPAT	OR	OFF	2006/10/29 17:42
S165	1	S164 and filler	USPAT	OR	OFF	2006/10/29 17:42
S166	65	(lithium same battery) and (surface same roughness same adhesion)	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:14
S167	65	(lithium same battery) and (surface same roughness same adhesion) and roughness	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:15
S168	5	(lithium same battery) and (surface same roughness same adhesion same separator) and roughness	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:18
S169	34	(lithium same battery) and (roughness same adhesion same electrode) and roughness	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:18
S170	35	(lithium same battery) and (roughness same adhesion same (anode cathode electrode)) and roughness	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:25

S171	203	(lithium same battery) and (roughness same (anode cathode electrode)) and roughness	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:42
S172	63	(lithium same battery) and (roughness near3 (anode cathode electrode)) and roughness	US-PGPUB; USPAT	OR	OFF	2006/10/29 18:42
S173	63	(lithium same battery) and (roughness near3 (anode cathode electrode)) and roughness	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/29 18:42
S174	0	S130 and void\$2	US-PGPUB	OR	OFF	2006/10/29 19:06
S175	0	S130 and void\$2	USPAT	OR	OFF	2006/10/29 19:06
S176	1	S118 and void\$2	USPAT	OR	OFF	2006/10/29 19:06
S177	255	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)). in.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/29 19:25
S178	29	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)). in. and lithium and electrode and porosity and separator	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/29 19:27
S179	25	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)). in. and lithium and electrode and porosity and separator and insulat \$4	US-PGPUB; USPAT; USOCR	OR	OFF	2006/10/29 19:27
S180	1	10/562438	US-PGPUB	OR	OFF	2007/04/17 12:18
S181	1	S180 and adher\$4 and interface and void	US-PGPUB	OR	OFF	2007/04/17 12:19

S182	1	10/562438	US-PGPUB	OR	OFF	2007/04/18 12:14
S183	1	S182 and roughness	US-PGPUB	OR	OFF	2007/04/18 12:37
S184	1	S182 and separator\$2	US-PGPUB	OR	OFF	2007/04/18 14:09
S185	1	S182 and separator\$2 and film	US-PGPUB	OR	OFF	2007/04/18 13:20
S186	2	("6053953" "6287720"). PN.	USPAT	OR	OFF	2007/04/18 13:20
S187	1	S182 and oxide\$2 and polycrystal\$5	US-PGPUB	OR	OFF	2007/04/18 14:17
S188	1	S182 and oxide\$2 and polycrystal\$5 and glass \$3	US-PGPUB	OR	OFF	2007/04/18 14:17
S189	1	S182 and polycrystal\$5 and glass\$3	US-PGPUB	OR	OFF	2007/04/18 14:17
S190	1	"20030152828"	US-PGPUB	OR	OFF	2007/04/23 18:11
S191	1	"20020055036"	US-PGPUB	OR	OFF	2007/05/17 10:15
S192	1	S191 and separator\$2 and (microporous near layer\$2)	US-PGPUB	OR	OFF	2007/05/17 10:28
S193	1	S191 and particle\$2	US-PGPUB	OR	OFF	2007/05/17 10:28
S194	1	S191 and inorganic	US-PGPUB	OR	OFF	2007/05/17 10:31
S195	0	S191 and inorganic and binder\$2	US-PGPUB	OR	OFF	2007/05/17 10:31
S196	0	S191 and inorganic and adhesive\$2	US-PGPUB	OR	OFF	2007/05/17 10:32
S197	0	S191 and inorganic and binder\$2	US-PGPUB	OR	OFF	2007/05/17 10:32
S198	1	S191 and inorganic and binder\$2	US-PGPUB	OR	OFF	2007/05/17 10:38
S200	0	S191 and inorganic and binder\$2 and (thermoplastic same resin same (heat near resistant))	US-PGPUB	OR	OFF	2007/05/17 10:39
S201	1	S191 and inorganic and binder\$2 and (thermoplastic same resin) and (heat near resistant)	US-PGPUB	OR	OFF	2007/05/17 10:47

S202	1	S191 and inorganic and binder\$2 and (thermoplastic same resin) and (heat near resistant) and spacer and shut	US-PGPUB	OR	OFF	2007/05/17 10:50
S203	1	S191 and inorganic and binder\$2 and (thermoplastic same resin) and (heat near resistant) and spacer and shut and electrode \$2	US-PGPUB	OR	OFF	2007/05/17 10:53
S204	1	10/562438	US-PGPUB	OR	OFF	2007/05/17 10:53
S205	1	S191 and separator	US-PGPUB	OR	OFF	2007/05/17 11:52
S206	1	S204 and separator	US-PGPUB	OR	OFF	2007/05/17 10:54
S207	0	S191 and (resin\$2 same "5a")	US-PGPUB	OR	OFF	2007/05/17 11:27
S208	1	S191 and (resin\$2 abd "5a")	US-PGPUB	OR	OFF	2007/05/17 11:27
S209	0	S191 and (resin\$2 and "5a")	US-PGPUB	OR	OFF	2007/05/17 11:27
S210	0	S191 and resin\$2 and "5a"	US-PGPUB	OR	OFF	2007/05/17 11:27
S211	1	S204 and resin\$2 and "5a"	US-PGPUB	OR	OFF	2007/05/17 11:36
S212	1	S204 and filler and binder	US-PGPUB	OR	OFF	2007/05/17 11:44
S213	1	S204 and (film near binder)	US-PGPUB	OR	OFF	2007/05/17 12:20
S214	1	S204 and (film near binder) and "5a" and resin	US-PGPUB	OR	OFF	2007/05/17 11:44
S215	1	S191 and spacer	US-PGPUB	OR	OFF	2007/05/17 11:58
S216	0	S191 and spacer and porosity and pore	US-PGPUB	OR	OFF	2007/05/17 11:58
S217	1	S191 and spacer and percentage and pore	US-PGPUB	OR	OFF	2007/05/17 11:58
S218	1	S204 and porosity and (insulating near film)	US-PGPUB	OR	OFF	2007/05/17 12:26
S219	1	S204 and porosity and (insulating near film) and binder\$2 and resin \$2	US-PGPUB	OR	OFF	2007/05/17 12:33

S220	0	"4650730".pn.	US-PGPUB	OR	OFF	2007/05/17 12:33
S221	1	"4650730".pn.	USPAT	OR	OFF	2007/05/17 12:33
S222	1	S221 and inorganic	USPAT	OR	OFF	2007/05/17 12:34
S223	1	S221 and filler\$2 and ply	USPAT	OR	OFF	2007/05/17 12:39
S224	1	S221 and porosity	USPAT	OR	OFF	2007/05/17 12:41
S225	1	S221 and pore and volume	USPAT	OR	OFF	2007/05/17 12:41
S226	1	"20040161598"	US-PGPUB	OR	OFF	2007/05/18 10:17
S227	1	S226 and inorganic	US-PGPUB	OR	OFF	2007/05/18 10:17
S228	1	"5705292".pn.	USPAT	OR	OFF	2007/05/22 20:47
S229	1	S228 and porosity	USPAT	OR	OFF	2007/05/22 20:07
S230	0	S228 and porosity and heat and film and inorganic	USPAT	OR	OFF	2007/05/22 20:08
S231	0	S228 and porosity and heat and film and silicon	USPAT	OR	OFF	2007/05/22 20:08
S232	1	S228 and porosity and heat and film and alumin \$3	USPAT	OR	OFF	2007/05/22 20:39
S233	1	S228 and pore\$2	USPAT	OR	OFF	2007/05/22 20:39
S234	1	S228 and size\$2	USPAT	OR	OFF	2007/05/22 20:40
S235	1	"20020055036"	US-PGPUB	OR	OFF	2007/05/23 18:22
S236	1	S235 and pore\$2 and (size\$2 diamet\$3)	US-PGPUB	OR	OFF	2007/05/22 21:42
S237	0	S228 and pore\$2 and (size\$2 diamet\$3)	US-PGPUB	OR	OFF	2007/05/22 20:44
S238	1	"20040161598"	US-PGPUB	OR	OFF	2007/05/22 20:44
S239	1	S238 and pore\$2 and (size\$2 diamet\$3)	US-PGPUB	OR	OFF	2007/05/22 20:46
S240	1	S228 and pore\$2 and (size\$2 diamet\$3)	USPAT	OR	OFF	2007/05/22 20:47
S241	1	"4650730".pn.	USPAT	OR	OFF	2007/05/22 20:47

S242	1	S241 and pore\$2 and (size\$2 diamet\$3)	USPAT	OR	OFF	2007/05/22 20:47
S243	1	S235 and pore\$2 and (size\$2 diamet\$3) and alumina	US-PGPUB	OR	OFF	2007/05/22 21:00
S244	1	S235 and pore\$2 and (size\$2 diamet\$3) and alumina and inorganic	US-PGPUB	OR	OFF	2007/05/22 21:05
S245	1	S241 and pore\$2 and (size\$2 diamet\$3) and alumina and inorganic	USPAT	OR	OFF	2007/05/22 21:07
S246	1	S241 and pore\$2 and (size\$2 diamet\$3) and alumina and inorganic and second	USPAT	OR	OFF	2007/05/22 21:07
S247	1	10/562438	US-PGPUB	OR	OFF	2007/05/22 21:43
S248	0	S247 and bet	US-PGPUB	OR	OFF	2007/05/22 21:43
S249	0	S247 and BET	US-PGPUB	OR	OFF	2007/05/22 21:43
S250	1	S247 and mercury	US-PGPUB	OR	OFF	2007/05/22 21:44
S251	1	S247 and mercury and interface	US-PGPUB	OR	OFF	2007/05/22 21:44
S252	1	"20020055036"	US-PGPUB	OR	OFF	2007/05/23 18:22
S253	1	S252 and (heat near resistant) and inorganic	US-PGPUB	OR	OFF	2007/05/23 18:23
S254	1	10/562438	US-PGPUB	OR	OFF	2007/11/16 11:55
S255	1	S254 and less	US-PGPUB	OR	OFF	2007/11/16 11:56
S256	1	S254 and (porosity same insulating same film same (less\$3 smal\$4))	US-PGPUB	OR	OFF	2007/11/16 12:02
S257	1	S254 and (dendrit\$4 grape polycrystalin\$4)	US-PGPUB	OR	OFF	2007/11/16 12:03
S258	1	"5705292".pn.	USPAT	OR	OFF	2007/12/07 11:57
S259	1	S258 and spray\$3 and temperature\$2	USPAT	OR	OFF	2007/11/16 12:44
S260	1	10/562438	US-PGPUB	OR	OFF	2007/11/27 14:17
S261	1	S260 and porosity	US-PGPUB	OR	OFF	2007/11/27 14:17
S262	1	"20020055036"	US-PGPUB	OR	OFF	2007/12/06 17:15

S263	458	S262 and inorganic and binder\$2 (thermoplastic same resin same (heat near resistant))	US-PGPUB	OR	OFF	2007/12/06 17:20
S264	3813	(lithium near3 battery) and inorganic and binder \$2 (thermoplastic same resin same (heat near resistant))	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:20
S265	1	(lithium near3 battery) and inorganic and binder \$2 and (thermoplastic same resin same (heat near resistant))	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:20
S266	9	(lithium near2 battery) and (((shutdown shutdown) near separator \$2) same porositi\$3)	US-PGPUB	OR	OFF	2007/12/06 17:23
S267	17	(lithium near2 battery) and (((shutdown shutdown) near separator \$2) same porositi\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:27
S268	4	(lithium near2 battery) and ((insulating near film) same porositi\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:28
S269	4	(lithium near2 battery) and ((insulating near film) same porositi\$3) and porositi\$4	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:31
S270	7	(lithium near2 battery) and ((insulating near layer\$2) same porositi\$3) and porositi\$4	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:36
S271	1	(lithium near2 battery) and ((heat near insulat \$4) same porositi\$3) and porositi\$4 and separator \$2	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:37
S272	18	(lithium near2 battery) and ((heat near resistant) same porositi\$3) and porositi\$4 and separator\$2	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:40
S273	13	(lithium near2 battery) and (((thermal heat) near (insulat\$4 resistant) near (film\$3 layer\$3)) same porositi\$3) and porositi\$4 and separator\$2	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:52

S274	7	(lithium near2 battery) and (separator same (resin near layer\$2) same porosit\$3) and porosit\$4 and separator \$2	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:58
S275	15	(lithium near2 battery) and (separator same (resin near (film layer \$2)) same porosit\$3) and porosit\$4 and separator\$2	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/06 17:59
S276	1	"5830603".pn.	USPAT	OR	OFF	2007/12/07 11:00
S277	1	S276 and resin and film and electrolyte\$2 and porosit\$4	USPAT	OR	OFF	2007/12/07 11:11
S278	1	"4650730".pn.	USPAT	OR	OFF	2007/12/07 11:11
S279	1	S278 and resin and film and electrolyte\$2 and porosit\$4	USPAT	OR	OFF	2007/12/07 11:26
S280	1	"20020055036"	US-PGPUB	OR	OFF	2007/12/07 11:26
S281	0	S280 and (heat near resist\$4) and porosit\$3	US-PGPUB	OR	OFF	2007/12/07 11:26
S282	0	S280 and (heat-resist\$4) and porosit\$3	US-PGPUB	OR	OFF	2007/12/07 11:27
S283	0	S280 and porosit\$3	US-PGPUB	OR	OFF	2007/12/07 11:27
S284	1	S280 and pore\$2	US-PGPUB	OR	OFF	2007/12/07 11:27
S285	1	S280 and pore\$2 and (shut near down) and separator\$2	US-PGPUB	OR	OFF	2007/12/07 11:28
S286	1	"5705292".pn.	USPAT	OR	OFF	2007/12/07 11:57
S287	1	S286 and temperature\$2 and particle\$2	USPAT	OR	OFF	2007/12/07 11:57
S288	1	10/562438	US-PGPUB	OR	OFF	2007/12/07 12:37
S289	0	S288 and rough\$3	US-PGPUB	OR	OFF	2007/12/07 12:37
S290	1	S288 and rough\$4	US-PGPUB	OR	OFF	2007/12/07 12:38
S291	36	(lithium near battery) and (electrode\$2 near5 roughness)	US-PGPUB	OR	OFF	2007/12/07 12:39

S292	50	(lithium near battery) and (electrode\$2 near5 roughness)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/07 12:40
S293	1	(lithium near battery) and ((electrode\$2 near2 roughness) same separator)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/07 12:40
S294	2	(lithium near battery) and ((electrode\$2 near5 roughness) same separator\$2)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/07 12:40
S295	5	(lithium near3 battery) and ((electrode\$2 near5 roughness) same separator\$2)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/07 12:41
S296	62	(lithium near3 battery) and (electrode\$2 near5 roughness) and roughness and separator	US-PGPUB; USPAT; USOCR	OR	OFF	2007/12/07 12:41
S297	1	10/562438	US-PGPUB	OR	OFF	2007/12/10 10:23
S298	1	S297 and (porosity same separator same electrode)	US-PGPUB	OR	OFF	2007/12/10 10:24

5/ 9/ 2008 4:56:46 PM

C:\ Documents and Settings\blewis\ My Documents\ EAST\ Workspaces\ 10562438.w sp